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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,679	04/04/2006	Peter Hupfield	MSP642PCT1	1749
137 7590 04/09/2009 DOW CORNING CORPORATION CO1232 2200 W. SALZBURG ROAD P.O. BOX 994 MIDLAND, MI 48686-0994				
EXAMINER				
LOEWE, ROBERT S				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
04/09/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents.admin@dowcorning.com

### Office Action Summary

**Application No.**

10/574,679

**Applicant(s)**

HUPFIELD, PETER

**Examiner**

ROBERT LOEWE

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 11-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's arguments/remarks, filed on 2/20/09, have been fully acknowledged.

#### ***Response to Arguments***

Applicant's arguments regarding the 103(a) rejection of Smith et al. (US Pat. 3,329,661) in view of either Hupfield (WO-2003/16380) or Jo Lane et al. (US Pat. 4,661,577) have been fully considered and are found to be persuasive. Specifically, the Examiner agrees with Applicant's that the generic teaching to add softeners as taught by Smith et al. would not lead a person having ordinary skill in the art to select the specific aminopolysiloxanes as taught by Hupfield or Jo Lane et al. Further, while the aminopolysiloxanes taught by Hupfield or Jo Lane et al. are taught to act as fabric softeners, the instant claims require that an aminopolysiloxane is reacted with a functional group on the addition copolymer of instant claim 1, therefore a person having ordinary skill in the art would not have a reasonable expectation of success that the aminopolysiloxanes would maintain its function as a fabric softener. Last, the suggestion to add primary amines to the textile treating compositions is also considered too generic such that a person having ordinary skill in the art would not select the specific aminopolysiloxanes as taught by Hupfield or Jo Lane et al. Therefore, this rejection has been withdrawn.

Applicant's arguments regarding the 103(a) rejection of Eguchi et al. in view of Ohmori et al. have been fully considered and are not found to be persuasive. Applicants argue that the 103(a) rejection made in the previous Office action does not support a conclusion of obviousness. The Examiner disagrees. The motivation to add perfluorinated (meth)acrylates can be found in the previous Office action, and is repeated below. Applicants also include the Examiner's motivation to combine Eguchi et al. with Ohmori et al. as found on page 6 of

Applicants arguments/remarks. Applicants further argue "water and oil-repellency" are inherent properties of many fluoropolymers. The Examiner agrees with this statement. However, since both Eguchi et al. and Ohmori et al. seek to have a high level of water and oil-repellency, there would be ample motivation for a person having ordinary skill in the art to further increase the level of perfluorination in the polymer compositions as taught by Eguchi et al. Further, Eguchi et al. teaches that other perfluoropolymers such as vinylidene fluoride, and hexafluoropropylene may be included as other comonomers (3:30-35). Based on this teaching, a person having ordinary skill in the art would not be bound to only non-fluorinated acrylic acid esters, but would be cognizant of the fact that perfluoro analogs of these comonomers could also be employed.

This Office action is non-final owing to the fact that instant claim 10 was not rejected in the previous Office action using Eguchi et al. in view of Ohmori et al.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eguchi et al. (US Pat. 4,316,941) in view of Ohmori et al. (US Pat. 5,021,527).

Claims 1, 3, 4, 8 and 9: Eguchi et al. teaches a polymeric product having excellent heat and chemical resistance based on a perfluorinated polymer (2:10-24). Because of the perfluorinated groups and the structural similarities of instant claim 1, it is implicit that the polymer systems taught by Eguchi et al. have oil repellent properties. Eguchi et al. further teaches that these polymers are based on an amino-functional polysiloxane (A), which is bonded

through its amino groups (3:63-67 and 4:35-65), to an addition copolymer (B) which comprises perfluorinated monomer(s) and olefinically unsaturated monomers which have functional groups capable of reacting with the amino groups of the polysiloxane (A) (4:47-49). Eguchi et al. further teaches that additional olefinically unsaturated comonomers may be employed (3:30-35 and 9:66-10:3) and the process for preparing oil repellent compositions according to instant claim 8 (examples).

Eguchi et al. does not explicitly teach that the perfluorinated comonomer is comprised of a fluoro-substituted alkyl ester of an olefinically unsaturated carboxylic acid. However, Eguchi et al. does explicitly teach that additional comonomers such as (meth)acrylic acid esters may be added. While Eguchi et al. does not explicitly teach that the (meth)acrylic acid esters are perfluorinated, it would have nonetheless have been obvious to a person having ordinary skill in the art to employ such perfluorinated acrylic monomers in the compositions of Eguchi et al.; the motivation being rooted in the teachings of Eguchi et al. and echoed in the teachings of Ohmori et al. (1:13-15). Eguchi et al. and Ohmori et al. are combinable because they are from the same technical difficulty, namely, rendering substrates oil and water repellent by employing perfluorinated polymer compositions. Eguchi et al. is concerned with increasing the water-repellency of coating compositions and Ohmori et al. teaches that it is known to employ fluorinated acrylic polymers as useful water and oil-repellent agents. Based on these collective teachings, it would have been obvious to employ perfluorinated acrylic comonomers in the compositions of Eguchi et al. with the motivation that inclusion of the perfluorinated acrylates would be expected to increase the water repellency of the coatings taught by Eguchi et al.

Claim 2: Eguchi et al. further teaches that the amino-functional polysiloxane of instant claim 1 meets the structural limitations of instant claim 2 (10:35 and 10:55, for example).

Claim 5: Eguchi et al. further teaches that the polymeric product has  $\text{-NHCH}_2\text{CHOH-}$  linkages resulting from the reaction of the amino-functional polysiloxane with the epoxide-groups of the perfluorinated addition copolymer (3:65).

Claim 6: Eguchi et al. further teaches that carboxylic acids may be used as a reactive site in the preparation of the amino-siloxane, perfluorinated epoxide-functional graft polymer compositions (3:55).

Claim 7: Eguchi et al. further teaches that acrylic acid esters can be added as additional comonomers (3:30-35).

Claim 10: While Eguchi et al. does not teach that the rubber stopper sealing compositions are used to treat textiles, they are capable of doing so. See MPEP 2111.02 (II).

#### ***Allowable Subject Matter***

Claims 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Specifically, the compositions taught by Eguchi et al. are to be used as coatings for rubber stoppers which clearly do not qualify as a textile fabric, leather, or paper as required by method claims 11-13. While Ohmori et al. does explicitly teach perfluorinated compositions which are used to treat textiles such as leather (8:1-4 of Ohmori et al.), Ohmori et al. was relied on to show that the perfluorinated (meth)acrylates confer good water and oil-

repellent properties to the compositions taught by Ohmori et al. However, the combination of Eguchi et al. and Ohmori et al. would not lead a person having ordinary skill in the art to apply the rubber stopper coating compositions as taught by Eguchi et al. to textile fabrics such as leather as taught by Ohmori et al. It is believed that in so doing would amount to improper hindsight.

### *Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT LOEWE whose telephone number is (571)270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 1796

/R. L./

Examiner, Art Unit 1796

5-Mar-09

/Randy Gulakowski/

Supervisory Patent Examiner, Art Unit 1796